09/ 954685

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Alec A. CIOLAC

Assignee: ATI Technologies, Inc.

Title: SYSTEM FOR PROVIDING MULTIPLE DISPLAY SUPPORT AND METHOD
                   THEREOF

Patent No.:   6,970,173 B2   Issued: November 29, 2005

Atty. Docket No.: 1376-0100720

MS: Certificate of Correction Branch
COMMISSIONER FOR PATENTS
PO Box 1450
Alexandria, VA 22313-1450

REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT—
PTO MISTAKE (37 C.F.R. § 1.322(a))

Dear Sir:

        Pursuant to 35 U.S.C. § 254 and 37 C.F.R. § 1.322(a), please issue a Certificate of Correction in
the above-identified matter. The mistake(s) to be corrected was made by the Office.

1. Attached hereto, in duplicate, is Form PTO-1050, with at least one copy suitable for printing.

2. The exact page(s) and line number(s) where the error(s) is shown correctly in the application file:

    Amendment After Allowance dated June 15, 2005, page number 4 of 10, Claim 11 (renumbered as
    Claim 13); and page number 4 of 10, Claim 16 (renumbered as Claim 18).

3. Please send the Certificate to:

    J. Gustav Larson
    LARSON NEWMAN ABEL POLANSKY & WHITE, L.L.P.
    5914 West Courtyard Dr., Suite 200
    Austin, TX 78730

Certificate
JUN 1 9 2006
of Correction

                    Respectfully submitted,

___6-9 06___   _/ Gustav Larson_
Date   J. Gustav Larson, Reg. No. 39,263
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JUN 19 2006

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO   : 6,970,173 B2

DATED   : November 29, 2005

INVENTOR(S) : Alec A. CIOLAC

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 12, line 41: Please change the word "vent" to "event"

Column 12, line 56: Please change "A The method" to "The method"

MAILING ADDRESS OF SENDER:

LARSON NEWMAN ABEL POLANSKY & WHITE, L.L.P.
5914 West Courtyard Dr., Suite 200
Austin, TX 78730

PATENT NO. 6,970,173 B2

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INVENTOR(S) : Alec A. CIOLAC

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Column 12, line 56: Please change "A The method" to "The method"

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):   Alec A. CIOLAC

Title: SYSTEM FOR PROVIDING MULTIPLE DISPLAY SUPPORT AND
                 METHOD THEREOF

App. No.:   09/954,685   Filed: 09/14/2001

Examiner: TUNG, Kee M.   Group Art Unit: 2676

Customer No.:   34456   Confirmation No.:   8450

Atty. Dkt. No.: 1376-0100720

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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

AMENDMENT AFTER ALLOWANCE (37 C.F.R. §1.312)

Dear Sir:

This Amendment is being submitted following the Notice of Allowance mailed on April

4, 2005 and prior to payment of the issue fee.

Claim Amendments begin on page 2.

Remarks begin on page 9.

IN THE CLAIMS:

Please amend claims 9, 24, 42 and 43 as indicated in the following:

1.   (Previously Presented) A method comprising:

partitioning a frame buffer into a first portion and a second portion associated with a first

virtual display and a second virtual display, wherein a space allocated to at least

the first portion is based on one or more parameters of at least the first virtual

display;

storing a first set of display data in the first portion of the frame buffer, wherein the first

set of display data is associated with the first virtual display;

storing a second set of display data in the second portion of the frame buffer, wherein the

second set of display data is associated with the second virtual display;

selecting one of the first virtual display or the second virtual display to be presented by a

display device;

when the first virtual display is selected, providing data from the first portion of the frame

buffer to a display controller for presentation on the display device; and

when the second virtual display is selected, providing data from the second portion of the

frame buffer to the display controller for presentation on the display device.

2.   .   (Canceled)

2
9.   (Original) The method as in Claim 1, wherein the frame buffer is associated with

video hardware connected to the display device.

3 9   (Previously Presented) The method as in Claim 1, wherein selecting one of the

first virtual display or the second virtual display includes identifying an event trigger.

                                                                    3
4 9.   (Previously Presented) The method as in Claim 9, wherein the event trigger

includes identifying a particular first pre-defined set of keystrokes to select the first virtual

display and a second pre-defined set of keystrokes to select the second virtual display.

5

6. (Original) The method as in Claim 3, wherein the event trigger includes a mouse position.

6

7. (Original) The method as in Claim 3, wherein the event trigger includes activity associated with an application on one of the first virtual display or the second virtual display.

7

8. (Previously Presented) The method as in Claim 1, wherein an operating system desktop is expanded over the first and second virtual displays.

11

9. (Currently Amended) A method comprising:

determining a number of virtual displays in a plurality of virtual displays to be supported;

partitioning a frame buffer into a plurality of frame buffer portions, wherein the plurality of frame buffer portions includes a first frame buffer portion associated with a first virtual display of the plurality of virtual displays and a second frame buffer portion associated with a second virtual display of the plurality of virtual displays;

reporting the number of virtual displays as a number of display devices;

providing a first address associated with the first frame buffer portion, wherein the first address is reported as an address of a first frame buffer associated with a first display device; and

providing a second address associated with the second frame buffer portion, wherein the second address is reported as an address of a second frame buffer associated with a second display device;

wherein at any given time, only one of the number of virtual displays is to be displayed.

12

11

10. (Previously Presented) The method as in Claim 9, further including:

selecting one of the first virtual display or the second virtual display;

when the first virtual display is selected, providing data associated with the first frame buffer portion; and

when the second virtual display is selected, providing data associated with the second frame buffer portion.

13 11. (Previously Presented) The method as in Claim 10 [12], wherein selecting one of the first virtual display or the second virtual display includes identifying a event trigger.

14 12. (Previously Presented) The method as in Claim 11 [13], wherein the event trigger includes identifying a particular first pre-defined set of keystrokes to select first virtual display and a second pre-defined set of keystrokes to select the second virtual display.

15 13. (Original) The method as in Claim 11 [13], wherein the event trigger includes a mouse position.

16 14. (Original) The method as in Claim 11 [13], wherein the event trigger includes an activity associated with an application displayed on one of the first virtual display or the second virtual display.

17 15. (Previously Presented) The method as in Claim 9 [11], wherein partitioning the frame buffer includes determining a space to assign to a portion of the frame buffer dependent on parameters of an associated virtual display.

18 16. (Original) The method as in Claim 15 [17], wherein the parameters include a resolution assigned to each virtual display.

19 17. (Original) The method as in Claim 15 [17], wherein the parameters include a color depth assigned to each of the virtual displays.

20 18. (Original) The method as in Claim 9 [11], wherein the number of display devices to be supported is based on an available size of the frame buffer.

21 19. (Original) The method as in Claim 9 [11], wherein the number of display devices to be supported is based on virtual display parameters.

22 20. (Original) The method as in Claim 19 [21], wherein the parameters include a resolution assigned to each virtual display.

23
21
31.   (Previously Presented) The method as in Claim 19, wherein the parameters include a color depth assigned to each of the virtual displays.

24   32.   (Original) The method as in Claim 11, wherein reporting the number of virtual displays includes providing the number of virtual displays to an operating system as the number of display devices in a multiple display configuration. 33. 25

(Previously Presented) A system comprising: a data processor having an input/output buffer;

memory having an input/output buffer coupled to the input/output buffer of the data processor, said memory having a program of instructions including:

a display driver to:

report a multiple display configuration, wherein said multiple display configuration includes support for a plurality of virtual displays;

partition a frame buffer into a plurality of frame buffer portions;

assign a different virtual display of the plurality of virtual displays to each of the frame buffer portions of the plurality of frame buffer portions;

a video controller coupled to the input/output buffer of the data processor, said video controller having:

a frame buffer having the plurality of frame buffer portions, wherein each frame buffer portion of the plurality of frame buffer portions is to store display data associated with an assigned virtual display of the plurality of virtual displays; and

a display controller to provide display data from a frame buffer portion of the plurality of frame buffer portions to a display device; and

wherein said display controller is to display a selected virtual display from the plurality of virtual displays dependent on an event trigger.

26   25
24.   (Currently Amended) The system as in Claim 23, wherein said display driver further is to select a virtual display from the plurality of virtual displays for presentation and said display data provided by said display controller is associated with the selected virtual display.

25.   (Canceled)

27 ~~26~~.   (Previously Presented) The system as in Claim ~~24~~ **26**, wherein the event trigger includes identifying a particular first pre-defined set of keystrokes to select a first virtual display of the plurality of virtual displays and a second pre-defined set of keystrokes to select a second virtual display of the plurality of virtual displays.

28 ~~27~~.   (Previously Presented) The system as in Claim ~~24~~ **26**, wherein the event trigger includes a mouse position.

29 ~~28~~.   (Previously Presented) The system as in Claim ~~24~~ **26**, wherein the event trigger includes an activity associated with an application displayed on one of the virtual displays of the plurality of virtual displays.

30 ~~29~~.   (Original) The system as in Claim ~~23~~ **25**, wherein said display driver reports said multiple display configuration to an operating system.

31.

30.   (Previously Presented) A computer readable medium tangibly embodying a program of instructions, said program of instructions including instructions to:

determine a number of virtual displays in a plurality of virtual displays to be supported;

partition a frame buffer into a plurality of frame buffer portions, wherein the plurality of frame buffer portions include a first frame buffer portion associated with a first virtual display of the plurality of virtual displays and a second frame buffer portion associated with a second virtual display of the plurality of virtual displays;

report the number of virtual displays as a number of display devices in a multiple display configuration;

provide a first address associated with the first frame buffer portion, wherein the first address is reported as an address of a first frame buffer associated with a first display device of the multiple display configuration; and

provide a second address associated with the second frame buffer portion, wherein the second address is reported as an address of a second frame buffer associated with a second display device of the multiple display configuration;

wherein at any given time, only one of the number of virtual displays is to be displayed.

32.   31

31.   (Original) The computer readable medium as in Claim 30, further including instructions to:

select one of the first virtual display or the second virtual display;

provide data associated with the first frame buffer portion when the first virtual display is selected; and

provide data associated with the second frame buffer portion when the second virtual display is selected.

33.   32

32.   (Original) The computer readable medium as in Claim 31, wherein a trigger event is used to select one of the first virtual display or the second virtual display.

34.   33

33.   (Previously Presented) The computer readable medium as in Claim 32, wherein the event trigger includes identifying a particular first pre-defined set of keystrokes to select the

first virtual display and a second pre-defined set of keystrokes to select the second virtual display.

35 34. (Original) The computer readable medium as in Claim 32, wherein the event trigger includes a mouse position.

36 35. (Original) The computer readable medium as in Claim 32, wherein the event trigger includes an activity associated with an application displayed on one of the first virtual display or the second virtual display.

37 36. (Original) The computer readable medium as in Claim 30, wherein the instructions to partition the frame buffer includes determining a space to assign to a portion of the frame buffer dependent on parameters of an associated virtual display.

38 37. (Original) The computer readable medium as in Claim 36, wherein the parameters include a resolution assigned to each virtual display.

39 38. (Original) The computer readable medium as in Claim 36, wherein the parameters include a color depth assigned to each of the virtual displays.

40 39. (Original) The computer readable medium as in Claim 30, wherein the number of display devices to be supported is based on an available size of the frame buffer.

41 40. (Original) The computer readable medium as in Claim 30, wherein the number of display devices to be supported is based on virtual display parameters.

42 41. (Original) The computer readable medium as in Claim 40, wherein the parameters include a resolution assigned to each virtual display.

43 42. (Currently Amended) The computer readable medium as in Claim 30, wherein the instructions to report the number of virtual displays includes reporting instructions to report the multiple display configuration to an operating system.

8.

~~13~~. (Currently Amended) The method ~~of claim 1~~ <u>as in Claim 1</u>, wherein the first set of display data is associated with a first application and the second set of display data is associated with a second application, the first application being different than the second application, and the first application not being associated with the second application.

9.

~~14~~. (Previously Presented) The method as in Claim 1, wherein the one or more parameters include a resolution assigned to the first virtual display.

10.

~~15~~. (Previously Presented) The method as in Claim 1, wherein the one or more parameters include a color depth assigned to the first virtual display.
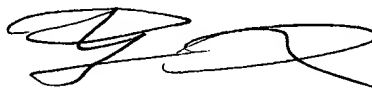
REMARKS

Claims 9, 24, 42 and 43 have been amended to correct various informalities. The amendments to the claims do not change the scope of the claims. Entry thereof is therefore respectfully requested.

Should the Examiner deem that any further action by the Applicant would be desirable for placing this application in even better condition for issue, a call to the Applicant's representative listed below is requested.

The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment, to Deposit Account Number 50-0441.

Respectfully submitted,

15 June 2005

Date

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